

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-026980

(43)Date of publication of application : 25.01.2000

(51)Int.Cl.

C23C 22/00

C09D 5/08

C09D201/00

(21)Application number : 11-115152

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(22)Date of filing : 22.04.1999

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(30)Priority

Priority number : 10112442 Priority date : 22.04.1998 Priority country : JP

(54) METAL SURFACE TREATING AGENT, SURFACE-TREATED METALLIC MATERIAL AND RESIN COATED METALLIC MATERIAL

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a chromium-free metal surface treating agent excellent in corrosion resistance and adhesion of a coating material by using an aluminum salt, a salt of a metal other than aluminum, a phosphorus compd. and a resin and/or its precursor as constituent components.

SOLUTION: The metal surface treating agent contains an aluminum salt, a salt of a metal other than aluminum, a phosphorus compd. and a resin and/or its precursor, has a phosphorus to aluminum equiv. ratio of ≥ 0.1 and does not contain chromium. The resin and its precursor fix all the other components in the treating agent except a solvent on a metal surface as a tough film. The resin preferably has a mol.wt. $\geq 1,000$. The content of the resin and its precursor is preferably 30-80 wt.% of the total amt. of all the constituent components in the treating agent. The resin is preferably an acrylic resin, polyester resin, acrylic modified polyester resin, epoxy modified polyester resin or urethane modified polyester resin.